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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/729,009

12/08/2003

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EXAMINER

PARSLEY, DAVID J

ART UNIT

PAPER NUMBER

3643

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/729,009	<b>Applicant(s)</b> MATSUDA ET AL.	
	<b>Examiner</b> DAVID J. PARSLEY	<b>Art Unit</b> 3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,3,5 and 8-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3,5 and 8-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10-3-07</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **Detailed Action**

### ***Amendment***

1. This office action is in response to applicant's amendment dated 3-5-08.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 5 and 8-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to whether the "transfer charge" in line 2 of claim 3 is the first transfer charge or the second transfer charge as seen in parent claim 2.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to whether "a gas generating agent" as seen in line 2 of claim 5 is a new

Art Unit: 3643

gas generating agent or the gas generating agent of one of the first transfer charge, the second transfer charge or the gas generating agent in the combustion chamber of parent claim 2. Further, if the gas generating agent of claim 5 is the gas generating agent in the combustion chamber then the carboxymethyl cellulose sodium salt should be deleted from the claim in that this limitation is already found in parent claim 2.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to whether "a gas generating agent" as seen in line 2 of claim 85 is a new gas generating agent or the gas generating agent of one of the first transfer charge, the second transfer charge or the gas generating agent in the combustion chamber of parent claim 2. Further, it appears that this claim should depend from claim 5 in that the claimed components of the gas generating agent of claim 8 are the same components claimed in claim 5.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to whether "a gas generating agent" as seen in line 2 of claim 9 is a new gas generating agent or the gas generating agent of one of the first transfer charge, the second transfer charge or the gas generating agent in the combustion chamber of parent claim 2. Further, if the gas generating agent of claim 9 is the gas generating agent in the combustion chamber and the gas generating agent of claim 5 is the gas generating agent of the combustion chamber (the carboxymethyl cellulose sodium salt would then be deleted) then both of these claims would be identical and one should be deleted.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to whether "a gas generating agent" as seen in line 2 of claim 10 is a new gas generating agent or the gas generating agent of one of the first transfer charge, the second transfer charge or the gas generating agent in the combustion chamber of parent claim 2.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to whether "a gas generating agent" as seen in line 2 of claim 11 is a new gas generating agent or the gas generating agent of one of the first transfer charge, the second transfer charge or the gas generating agent in the combustion chamber of parent claim 2. Further, if the gas generating agent of claim 11 is the gas generating agent in the combustion chamber then claim 11 does not further limit parent claim 2 in that the gas generating agent of the combustion chamber already is claimed as containing carboxymethyl cellulose sodium salt.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to whether "a gas generating agent" as seen in line 2 of claim 12 is a new gas generating agent or the gas generating agent of one of the first transfer charge, the second transfer charge or the gas generating agent in the combustion chamber of parent claim 2.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to whether "a gas generating agent" as seen in line 2 of claim 13 is a

Art Unit: 3643

new gas generating agent or the gas generating agent of one of the first transfer charge, the second transfer charge or the gas generating agent in the combustion chamber of parent claim 2.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to whether "a gas generating agent" as seen in line 12 of claim 14 is a new gas generating agent or the gas generating agent of one of the first transfer charge, the second transfer charge or the gas generating agent in the combustion chamber.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 10 and 12 are rejected under 35 U.S.C. 103(a) as being obvious over U.S.

Patent No. 6,485,051 to Taguchi et al. in view of U.S. Patent Application Publication No.

2003/0145922 to Taylor et al. in view of U.S. Patent No. 6,139,055 to Dahl et al. in view of U.S.

Patent No. 6,143,102 to Mendenhall et al. in view of U.S. Patent No. 6,517,647 to Yamato.

The applied reference US 6517647 has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was

Art Unit: 3643

derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Referring to claim 2, Taguchi et al. disclose a gas generator for an air bag comprising a housing (1 of Fig. 1) with a gas discharge hole (12a of Fig. 1); an ignition means (8 and 9 of Fig. 1) including at least one transfer charge (27B of Fig. 1); a second transfer charge (27B Of Fig. 1 for igniter 9); and, a combustion chamber (3 and 4 of Fig. 1), wherein the second transfer charge is adapted to be activated after an activation of the first transfer charge (capable of this activity). Not disclosed is the first transfer charge being a mixture of transfer charge powder and molded articles of a gas generating agent; the second transfer charge being only the gas generating agent molded article; and, the gas generating agent including guanidine nitrate and basic copper nitrate. Taylor et al., however, disclose a first transfer charge being a mixture of transfer charge powder ("boron" and "potassium nitrate" of para. 0052) and molded articles of a gas generating agent ("guanidine nitrate" of para. 0052); Dahl et al. disclose that first and second charges can be different compositions that are gas generating (from "igniter material.., in secondary igniter assembly.., may be comprised of various types of gas generating materials"); and Mendenhall

Art Unit: 3643

et al. disclose use of guanidine nitrate and basic copper nitrate as a gas generant. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the air bag of Taguchi et al. by using the transfer charge of Taylor et al. so as to prevent the formation of incomplete products of combustion (see Taylor et al. at para. 0022), to use only a gas generating material in the second transfer charge to prevent "sympathetic" ignition (see Dahl et al. at col. 8 lines 3-11), and to use guanidine nitrate and basic copper nitrate as the gas generant so as to have a generant with thermal stability (see Mendenhall et al. at col. 1 lines 50,59. Taguchi et al. further does not disclose the gas generating material has carboxymethyl cellulose sodium salt and aluminum hydroxide. Yamato does disclose a gas generating material including guanidine nitrate, basic copper nitrate, carboxymethyl cellulose sodium salt and aluminum hydroxide - see column 3 line 40 thru column 5 line 8. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Taguchi et al. and add the gas generating agent containing carboxymethyl cellulose sodium salt and aluminum hydroxide of Yamato, so as to allow for the device to quickly form a gaseous substance during use.

As to claim 3, Taguchi et al. as modified by Taylor et al., Dahl et al., and Mendenhall et al. and Yamato further disclose the transfer charge being boron and niter (Taylor et al. at para. 0052; Dahl et al. at col. 7 lines 31-35).

As to claim 10, the limitations of claim 2 is disclosed as described above. Not disclosed are molded articles of a gas generating agent generating at least 1.2 moles per 100g. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the air bag of Taguchi et al. as modified by Taylor et al., Dahl et al., and Mendenhall et al. and



Yamato by having molded articles of a gas generating agent generating at least 1.2 moles per 100g depending upon use of the air bag.

As to claim 12, the limitations of claim 2 is disclosed as described above. Not disclosed is the gas generating agent has a combustion temp. of 1200 to 1700 C. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the air bag of Taguchi et al. as modified by Taylor et al., Dahl et al., and Mendenhall et al. and Yamato by having the gas generating agent has a combustion temp. of 1200 to 1700 C.

Claims 5, 8, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi et al. (US 6,485,051 B1) in view of Taylor et al. (US 2003/0145922 A1) and Dahl et al. (US 6,139,055) in view of Mendenhall (US 6,143,102) in further view of Matsuda et al. (US 5,780,767) and Yamato (US 6,517,647).

As to claims 5, 9, and 11, the limitations of claim 2 are disclosed as described above. Not disclosed is the molded article of gas generating agent being nitroguanidine, strontium nitrate, and carboxymethyl cellulose sodium salt. Matsuda et al., however, discloses a gas generant material with nitroguanidine, strontium nitrate, and carboxymethyl cellulose sodium salt (col. 4 lines 5-9; col. 3 lines 5-7). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the air bag of Taguchi et al. as modified by Taylor et al., Dahl et al., Mendenhall et al. and Yamato by using a gas generating agent for the molded article of nitroguanidine, strontium nitrate, and carboxymethyl cellulose sodium salt as disclosed by Matsuda et al. that has excellent combustion speed (see Matsuda et al. at abstract).

As to claim 8, the limitations of claim 2 are disclosed as described above. Matsuda et al further disclose a gas generating agent including 34.4% mass of nitroguanidine and 55.6% mass

Art Unit: 3643

of strontium nitrate (from col. 4 lines 5-9) and carboxymethyl cellulose sodium salt (col. 3 lines 5-7). Not disclosed is the carboxymethyl cellulose sodium salt at 10% and use as the gas generant as molded article. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the air bag of Taguchi et al. as modified by Taylor et al., Dahl et al., Mendenhall et al. and Yamato by using a gas generating agent for the molded article of nitroguanidine at 34.4%, strontium nitrate at 55.6% as disclosed by Matsuda et al. so as to have excellent combustion speed(see Matsuda et al. at abstract) and to have the carboxymethyl cellulose sodium salt at 10% so as to include a binder.

As to claim 13, the limitations of claim 5 are disclosed as described above. Not disclosed is the molded article having a temperature of about 2200 C. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the air bag of Taguchi et al. as modified by Taylor et al., Dahl et al., Mendenhall et al., Yamato and Matsuda et al. by having the molded article having a temperature of about 2200 C.

#### ***Allowable Subject Matter***

4. Claim 14 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 2-3, 5 and 8-14 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID J. PARSLEY whose telephone number is (571)272-6890. The examiner can normally be reached on Monday-Friday from 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571) 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David J Parsley/  
Primary Examiner, Art Unit 3643